

Scott M. Matheson
Governor



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Executive Director
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DIVISIONS

Community Health Services
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STATE OF UTAH
DEPARTMENT OF HEALTH
DIVISION OF ENVIRONMENTAL HEALTH

150 West North Temple, P.O. Box 2500, Salt Lake City, Utah 84110

Alvin E. Rickers, Director
Room 426 801-533-6121

533-6146
August 19, 1981

RECEIVED
APR 06 1982

DIVISION OF
OIL, GAS & MINING

Mr. Richard A. Dye
Atlas Minerals
Big Indian Mines
Moab, Utah 84530

Re: Construction Permit
Rim Mine Waste Treatment

Dear Mr. Dye:

We have reviewed the plans and information regarding the Atlas Minerals Rim Uranium mine wastewater treatment system in Section 29 T31S R25E. The June 22, 1981 engineering report and plans RC-T-97e, 101-d, 102-d were reviewed.

As a result, the Atlas Rim Mine wastewater treatment system plans are approved and a construction permit as constituted by this letter is hereby issued provided the outlet pipe has a submerged inlet or appropriate baffle to prevent the discharge of oil and floating materials.

The system is designed for flocculation, settling and Ba Cl₂ treatment of .029MGD of mine drainage. The two ponds will each contain approximately 0.35 million gallons and have a one foot clay liner. The dikes will have a slope of approximately three horizontal to one vertical and a dike crest width of ten feet. The Ba Cl₂ solution will be added at a rate of approximately 5 mg/l.

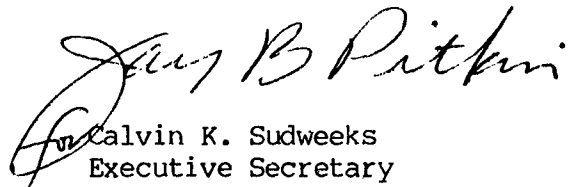
Issuance of this construction permit is not an approval of effluent concentrations. Should the effluent not meet state or federal discharge requirements, you must provide whatever

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additional treatment is necessary. You must submit to this office a monthly report of the chemicals added, flow, TDS, TSS, Radium, pH, oil and grease effluent concentrations. A report identifying the alpha and beta nuclides and their environmental impact should also be submitted to this office by July 31, 1981.

Sincerely,

UTAH WATER POLLUTION COMMITTEE


Calvin K. Sudweeks
Executive Secretary

SRM:drb

cc: Oil, Gas & Mining
Southeast 208
Southeastern District Health Department

ATLAS MINERALS
RIM MINE WATER TREATMENT FACILITY

1. The applicant must submit this same design to the Utah Department of Health for review and application for an NPDES permit.
2. The sedimentation and radium precipitation process is apparently a feasible system. The calculated detention time is 12.2 days for 28,000 gpd flow which is more than adequate.
3. The applicant should notify the State of Utah Division of Water Rights to determine whether water rights for the mine discharge need to be issued (if they haven't been already).
4. What is the approximated life of the treatment facility? The applicant must provide a maintenance agreement to prevent excessive solids buildup and consequential "short-circuiting" of the treatment process.
5. If maintenance involves removal of the precipitated radium particles and the settled solids, with intent to bury materials on-site, then a toxicity analysis of such environmentally sound disposal method may be derived.